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Plummer's rival theory on p. 354, I will only say now that it was hardly needful to propose it if he doubted the reality of the result.

In conclusion, I would remark that some good may have come from this controversy if it has provided an opportunity for drawing attention to one or two fundamental points in statistical theory, and to possible directions of inquiry in the case of variable stars of the different classes discussed in my paper. I should particularly like to have some additional information with regard to the outlying stars in my third diagram (p. 148).

The Long Period Variable RT Cygni (*Ch.* 7085) *in* 1908.

By A. N. Brown. (Plate 21.)

The following 69 observations of this Variable made in 1908 with 10 belonging to 1909 cover two maxima and two minima, the probable dates of which are shown on the curve appended. Owing, however, to continued bad weather during the second half of December, considerable uncertainty is inevitable with regard to the last maximum. The dates of maximum and minimum light are assumed to be those on which a smooth curve drawn through the observations reaches the highest and lowest points respectively.

In the 1st. column below the date is given, and in the 2nd. the Julian date corresponding, omitting the constant number 2410000. In the 3rd. column T indicates a 5-in. refractor, t a 3-in. refractor, each of these letters being followed by the magnifying power used. The 4th. column shows the value attached to each observation, 1 denoting good, reliable; 2 fairly good—the Moon, thin clouds, dew on the lens, etc., having been some hindrance; 3 a poor estimate. Most of the comparisons following in the 5th. column were made by the "fractional" method, but each has here been expressed in steps, the value of a step in all cases being $\frac{1}{10}$ magnitude. All the comparison stars used are numbered as in Hagen's Atlas, the negative sign after the comparison star implying that the variable is fainter, and the positive sign brighter, than that star. The last column gives the magnitude deduced from the comparisons, a mean being taken when two or more separate light-estimates are made. In working out these results the Harvard value of each comparison star has been adopted where this was forthcoming; when the H.C.O. does not assign a value to one of Hagen's stars used, Hagen's own value, as given in the *Atlas Stell. Var.*, has been taken.

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The Observations.

Date. 1908.		Julian date.	Instr.	Class.	Comparisons.	Ded. mag.
Jan.	12	7953	t. 30	1	5 − 4·5, 10 + 1 ; 7 − 2·5, 10 + 1	8·3
	20	7961	T. 50	,,	= 10	8·4
	27	7968	t. 30	2	14 − 1	8·8
Feb.	1	7973	T. 50	1	15 − 1·5, 20 + 3·5 ; 16 − 3·5, 19 + 2·5	9·0
	2	7974	,,	,,	15 − 1, 20 + 3·5 ; 16 − 1·5, 19 + 1·5	8·9
	23	7995	T. 95	3	41 + 1	10·3
Mar.	14	8015	T. 200	1	43 − 3·5, 44 + 0·5	11·0
April	8	8040	t. 120	,,	44 − 1	11·1
	13	8045	t. 150	2	44 − 1	11·1
May	6	8068	T. 95	1	22 − 8, 38 + 1·5	10·3
	9	8071	,,	,,	23 − 1, 25 + 0·5	9·6
	10	8072	,,	,,	23 − 1·5, 25 + 0·5	9·7
	18	8080	T. 50	,,	15 − 4, 20 + 1	9·2
	21	8083	,,	,,	15 − 1·5, 20 + 3·5 ; 16 − 4, 19 + 2	9·0
	26	8088	,,	,,	10 − 2·5, 15 + 2	8·6
	27	8089	t. 30	,,	13 − 0·5, 14 + 0·5 ; 12 − 2, 15 + 1	8·7
	28	8090	T. 50	,,	10 − 1·5 ; 10 − 0·5, 15 + 4	8·5
	31	8093	T. 25	,,	10 − 1·5, 14 + 1 ; 11 − 1	8·5
June	6	8099	t. 30	,,	4 − 2, 6 + 1 ; 5 + 1	7·8
	10	8103	T. 25	,,	4 − 0·5, 5 + 1	7·7
	18	8111	t. 30	,,	3 − 5, 4 + 5	7·2
	21	8114	,,	,,	3 − 7, 4 + 3	7·4
	22	8115	T. 25	,,	3 − 7, 4 + 2·5	7·4
	23	8116	,,	,,	3 − 7, 4 + 2·5	7·4
	24	8117	t. 30	,,	3 − 6·5, 4 + 3	7·3
	25	8118	,,	,,	3 − 7, 4 + 3	7·4
	28	8121	,,	,,	3 − 6, 4 + 4	7·3
	29	8122	,,	,,	3 − 6, 4 + 4	7·3
	30	8123	,,	,,	3 − 6, 4 + 4	7·3
July	2	8125	,,	,,	3 − 7, 4 + 3	7·4
	7	8130	T. 25	,,	3 − 8, 4 + 2	7·5
	17	8140	t. 30	2	4 + 0·5 ; 3 − 8·5, 4 + 1	7·6
	19	8142	,,	1	4 − 1·5, 6 + 1	7·8
	20	8143	t. 30	1	4 − 1·5, 6 + 1	7·8
	22	8145	,,	,,	5 − 0·5, 6 + 0·5	7·9
	23	8146	,,	,,	5 − 0·5, 6 + 0·5	7·9
	25	8148	,,	,,	5 − 1, 7 + 0·5 ; 6 − 0·5	7·9
	26	8149	T. 50	,,	5 − 1·5, 7 + 0·5	8·0
	28	8151	t. 30	,,	5 − 1, 7 + 1	7·9
	29	8152	t. 60	,,	= 7	8·0
	31	8154	T. 50	,,	7 − 2·5, 10 + 1	8·3

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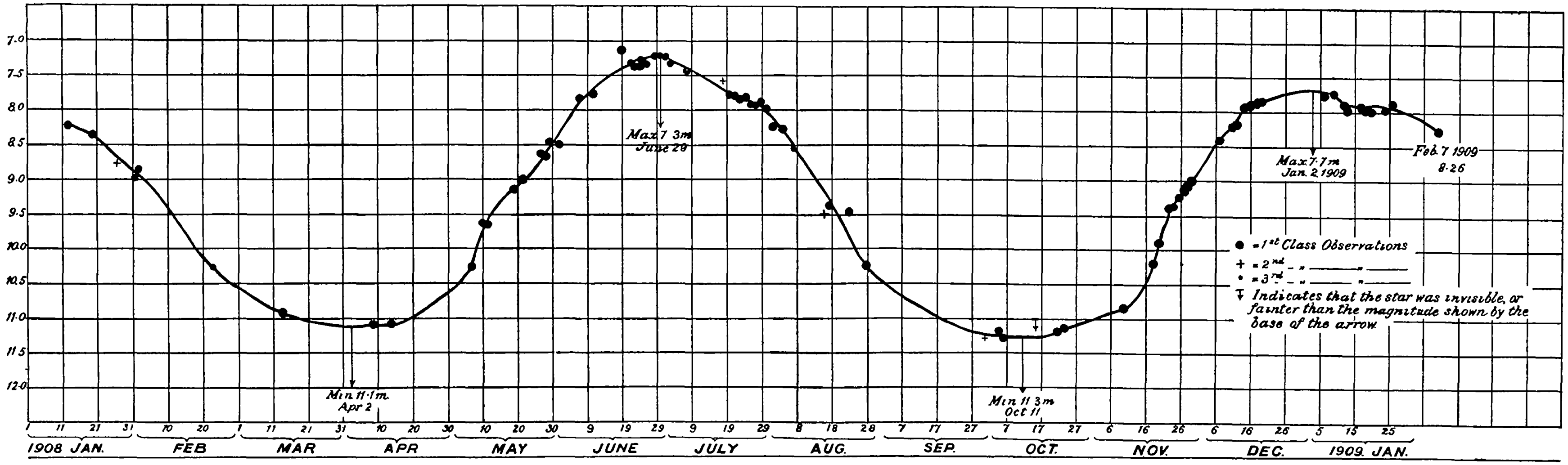

LIGHT CURVE OF RT CYGNI IN 1908.—A. N. BROWN.

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The Observations—continued.

Date.	Julian date.	Instr.	Class.	Comparisons.	Ded. mag.
1908.					
Aug. 3	8157	t. 30	,,	7 − 3, 10 + 1	8·3
6	8160	t. 60	,,	10 − 1·5, 14 + 1·5	8·5
15	8169	t. 75	2	= 22	9·5
16	8170	,,	1	19 − 1, 22 + 1	9·4
22	8176	t. 60	,,	= 22, = 23	9·5
27	8181	t. 75	,,	41 + 2 ; 22 − 8, 43 + 3	10·3
Sept. 30	8215	T. 150	2	44 − 3	11·3
Oct. 4	8219	,,	1	44 − 2	11·2
5	8220	,,	,,	44 − 3	11·3
15	8230	T. 200	...	< 44. Var. glimpsed	< 11·0
21	8236	,,	1	44 − 2	11·2
23	8238	,,	,,	44 − 1·5	11·2
Nov. 9	8255	T. 167	,,	43 − 2·5, 44 + 1·5	10·9
17	8263	T. 95	2	41 + 2	10·2
19	8265	,,	1	25 − 2, 30 + 1	9·9
22	8268	T. 70	,,	19 − 1, 22 + 1 ; 23 + 1	9·4
23	8269	,,	,,	19 − 1·5, 22 + 0·5 ; 23 + 1·5	9·4
25	8271	T. 50	,,	15 − 4, 20 + 1 ; 16 − 5, 19 + 1 ; 22 + 2	9·2
26	8272	,,	,,	15 − 4, 20 + 1 ; 16 − 4, 19 + 2	9·2
27	8273	,,	,,	15 − 3·5, 20 + 1·5 ; 16 − 3·5, 19 + 2·5	9·1
28	8274	,,	,,	15 − 1·5, 20 + 3·5 ; 16 − 3·5, 19 + 2·5	9·0
Dec. 6	8282	,,	2	10 − 1, 14 + 2·5	8·5
9	8285	,,	1	5 − 4, 10 + 1·5 ; 7 − 2, 10 + 1·5	8·2
10	8286	t. 30	,,	5 − 4, 10 + 1·5 ; 7 − 2, 10 + 2	8·2
13	8289	,,	,,	5 − 1·5, 7 + 0·5	8·0
15	8291	,,	,,	5 − 1, 7 + 0·5	7·9
17	8293	T. 50	,,	5 − 0·5, 7 + 1·5	7·9
18	8294	t. 30	,,	5 − 0·5, 7 + 1·5	7·9
1909.					
Jan. 5	8312	t. 30	1	4 − 1·5, 5 + 0·5 ; 4 − 2, 6 + 1	7·8
8	8315	,,	,,	4 − 1·5, 6 + 1 ; 5 + 1	7·8
11	8318	,,	,,	5 − 1, 7 + 1	7·9
12	8319	,,	,,	5 − 1·5, 7 + 1	7·9
16	8323	,,	,,	5 − 1, 7 + 1	7·9
17	8324	,,	,,	5 − 1·5, 7 + 0·5	8·0
19	8326	,,	,,	5 − 1·5, 7 + 1 ; 6 − 1, 7 + 0·5	8·0
25	8332	T. 50	,,	5 − 1·5, 7 + 0·5	8·0
27	8334	t. 30	,,	5 − 1·5, 7 + 1 ; 6 + 1	7·9
Feb. 7	8345	T. 50	,,	7 − 2·5, 10 + 1	8·3

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The Comparison Stars used.

Hagen's number.	Magnitude.		Hagen's number.	Magnitude.	
	H P.	Hagen.		H P.	Hagen.
3	6·67		16	8·71	
4	7·64		19		9·3
5		7·8	20		9·3
6		7·9	22		9·5
7		8·0	23		9·5
10	8·39		25		9·7
11		8·4	30		10·0
12		8·5	38	10·43	
13	8·54		41		10·4
14	8·67		43		10·6
15		8·8	44		11·0

New Barnet, Herts:
May 1909.

Results of Micrometer Measures of Double Stars made with the 28-*inch Refractor at the Royal Observatory, Greenwich, in the year* 1908.

(*Communicated by the Astronomer Royal.*)

The measures were made with a bifilar position-micrometer on the 28-inch refractor, focal length 28 feet. The power generally employed was 670. When bright stars were observed a blue glass shade was usually employed to diminish the light and irradiation. The observations were made in variously coloured fields, or in a dark field with illuminated wires. The initials in the last column are those of the observers, viz.—

S.E.	Mr. Eddington.	L.	Mr. Lewis.	B.	Mr. Bryant.
W.B.	Mr. Bowyer.	H.F.	Mr. Furner.	J.S.	Mr. Storey.

In general the present list of measures is confined to stars of which the separation is under 4″, or which show orbital motion. The complete measures with details will be published in the Greenwich volume for 1908.

The stars observed which do not appear in this list are :—

Σ 42
61
180
205
412 AC
645 AC
719 AC
753 AC
915
1196 AC
1196 BC
1224
1263

Σ 1300
1311
1379
1426 AC
1447
1461
1463
1487
1511
1555 AC
1561
1619

Σ 1909
1934
1946
1952
1964 A & BC
1965
2007
2087
2094 AC
2109
2145 AC

Σ 2272 Aa
Ac
Ad
Ae
Ag
2364
2379 AB
2379 AC
2426
2453
2458
2459

Σ 2481 AC
2505
2527 AC
2524
2522
2585 AC
2824 AC
2895
2978
3006
3042
3076

Σ 3078
3083
3086